Upholstery: How to deal with textile coverings? - Case Study Project Reconstruction Weissenstein

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Abstract
The aim of the “Weißenstein-Project” is to achieve the harmonious manifestation of its 1789 historic interior. Textiles are the most sensitive parts of the upholstered furnishings and exhibit the most obvious damages. In the planning of the conservation work, the following questions were discussed: How much will the public accept obviously aged original material? Which conservation methods are available? Which effect is desired? In the end, a system was formulated which considered the whole ensemble, the condition of the materials and the available conservation methods. The conservation of the other furnishings and decorative elements like wooden frames, paint layers and gilding and metal fittings will be in accordance with that of the conserved textiles.

Keywords
Kassel, palace, upholstery, textile coverings, textile conservation, furniture conservation, in situ

The Palace Weissenstein at Kassel, Germany
The “Weißenstein” is a wing of the prestigious palace complex of Kassel-Wilhelmshöhe. The Weissenstein was build during the years 1786 to 1790. In 1789 the first and second floors were furnished completely. As time went by, some parts of the palace were altered. This had a great effect on the interior: the textile wall hangings were exchanged and “contemporary” furniture was purchased. The furniture that was out-of-fashion was added to the reserve or reused in other castles and palaces. The most radical changes at the “Weißenstein” were carried out during the 20th century when the palace was opened to the public.
The project “Reconstruction of the Palace Weissenstein”

In 2006, the responsibility for the Kassel palaces changed hands and was assumed by the Museumslandschaft Hessen Kassel. In 2007, the Hessian Ministry of Culture embarked on a conservation project for the entire palace - both building and interior. The project “Reconstruction of the palace Weissenstein” is part of an extensive master plan for the Kassler Museumslandschaft which will cost 200 million euro. The aim of this ambitious project is to return the palace to its original 1789 construction and design. The improvement of environmental conditions and the control of light levels are major concerns with displaying historic objects and are therefore among the project’s priorities. To achieve the goals of the project, architects, architectural historians, art historians, engineers for construction, specialists for climate and light control, as well as conservators for textiles, furniture, paintings, metals, wall and stone must work together. Today, the pre-conservation examinations and planning are nearly complete. However, the plans for climate and light control are still in progress and precise conservation treatment proposals for every object have yet to be worked out in detail.

The art historian concept for the interior and the current situation

The art historians’ concept was to present the palace in its original magnificence-- as a palace built at the end of the “Ancient Regime”. It is possible to identify about 70% of the original 18th century interior from the existing inventory [1]. Today, the objects in question are housed in the exhibition area of the “Weissenstein”, in its storage rooms, and in other Hessian castles. No original 18th century textile wall hangings or drapes have survived in situ. The art historians discovered where the original silk damasks had been sent. Only two of those wall hangings are preserved intact. Silk damasks were the most precious elements of the interior design, aesthetically as well as monetarily. Therefore, the plan is to furnish three or four rooms with contemporary reconstructions of the damasks. The basis for the reconstructions will be the two preserved wall hangings as well as upholstery coverings and drapes which are currently in storage. The situation for the historic furniture is quite a different one. Most of the 18th century furniture is preserved intact except for a few changes and some losses caused by wear and tear. There are around two hundred and twenty 18th century upholstered objects with textile coverings listed in the inventories of the Weissenstein.

Fig. 1: Discussion about how to deal with the textile covering. © J. Dummer, MHK
The condition of the textile coverings and the other components of the upholstery

Over the course of the project, conservators and art historians dealt with the question how to reach an overall harmony in the conserved interior. The most controversial ideas were related to the textile coverings of the upholstery. Most of the textiles are in desperate need of conservation. They show most dramatic and rapid damages due to use. And when exposed to light, the textiles fade in colour and become brittle and eventually the fibre disintegrates into dust. In case of the Weissenstein textiles, all of these damages are present in various stages of intensity [2]. Natural aging is one cause of the, but the greater part was caused by excessive exposure to light [3]. One major cause of the damages seen on the “Weissenstein” textiles occurred during the 20th century, when the palace was opened to the public. The public likes to touch and feel textiles, and has very little inhibition to doing so.

Fig. 2: “Green Hercules Silk” – original covering from the 18th century, not treated.
© G. Bösert, MHK
The question arose, if it would be possible for the visitor to see the great magnificence of the “Ancient Regime” palace if it had degraded textile coverings? The very poor condition of some of the textiles prompted this question. Since re-touching or “freshening up” is not possible with textiles, other options must be investigated. There is the possibility of using a reproduction, or securing the original to a support textile by means of sewing or adhesive techniques. In order to conserve an upholstered piece of furniture, paintings, metal and textile conservators must work together. The conservators compiled general guidelines for the conservation of all materials. Among them that the original material should be conserved. This means that the aging of the materials should be accepted until the point where the damage dominates the object and presents a misleading picture of it. Treatment decisions should be made individually following the general rule of minimal intervention. Losses should be filled with a support fabric that matches the color and structure of the original. In order not to interfere with the integrity of the object, treatments should be carried out in situ when possible. This means that the fabric should not be removed from a piece of furniture. Sources of further damage should be minimised as much as possible. On these points, there was agreement among all of the conservators. However, during the discussions it became clear that furniture, paintings and metals conservators have available to them more conservation methods that can regenerate materials than textile conservators. The possibilities non-textile conservators have range from conserving the aged substance to retouching and reconstructing the original surface to such a degree that the object looks nearly new.

This led to a closer look at the condition of the wooden frames, polychromy, gilding and studs. Overall, the wooden frames of the upholstered furniture are in a good and stable condition. There are some local damages such as loosened joins and or adhered parts and a few missing parts like chair legs. Smaller and larger scratches are found in the varnishes and gildings. Loosened adhesive bonds should be reglued. Missing parts should be remade in accordance with the original. Damaged surfaces may be regenerated. However, re-touching should attempted before the original vanish is tackled. The painted surfaces and gilding are also damaged. Frames have been drastically repainted. There are losses in the polychromy. To fix this, various layers need to be built up and colour differences matched by retouching. This treatment should be done with great attention paid to the original polychromy and gilding. [4]
In general, the decorative metal studs are dirty, tarnished or corroded. Some are nearly black. The aim of the metals conservator is to make the material identifiable but not highly polished and bright while conserving original varnish. [5]

Fig. 4: Dirty, tarnished and corroded studs. © J. Dummer, MHK

Fig. 5: X-ray of a chair with a in former times remounted textile covering of the
From our survey we were able to conclude that all of the components of the upholstered furniture show the effects of age. They can be treated with minimal intervention. This is true for the textiles. If original textile coverings are to be shown, the fact that they have aged must be accepted up to a certain point. If damaged textiles are to be removed from wooden frames and replaced, the damage that the act of removing them might cause to the frame must be taken into account as textiles are usually mounted with many nails or tacks.

The setting of the ensembles, the condition of the coverings and possible conservation treatments – a trial to work out a system

The first step of the project has been completed. We have archived a basic understanding among all of the conservators. The general principles that have been formulated can now be turned into practice. The wooden frames, the construction, the polychromy and the studs will be conserved carefully and surfaces that show their age will be preferred. The textile conservators can now work out the details of how to handle the textile coverings. In order to formulate a concrete plan, they must have an overview of the holdings. From there, a detailed plan can be established step by step. Each piece of upholstery should be regarded as part of a room ensemble. Information about the condition of the textiles and possible conservation treatments must be taken into consideration.

The following may be used as a guideline for forming a systematic conservation plan for a particular room ensemble. Each chair is considered the smallest unit of the whole.

![Image of three chairs](image.png)

*Fig. 6: Different situations of the ensemble “Green Hercules Silk”. © H. Graf, art historian, freelancer*

Settings of the room ensembles of the “Weissenstein”

• In four rooms, the original 18th century coverings of the whole ensemble have survived in situ
• In two rooms, the composition of the ensemble varies. Some 18th century coverings have survived in situ, while other coverings were replaced with newer ones and some chairs were originally parts of another ensemble.

• In one room, the original 18th century coverings were removed, recut to fit in another way, and mounted again.

• In three rooms, it is unclear how the room was originally furnished. The art historians wish to add other interior furnishings from the 18th or 19th century.

Fig. 7: The covering fabric is still intact, some fibre ends are sticking out, no loss, lightly fade in colour, filling and webbing is intact. © G. Bösert, MHK
The range of conditions of the original coverings:

- The covering fabric is still intact. Some fibers are sticking out, but there are no losses. The fabric is lightly faded. The filling and webbing are intact.

- The covering is mainly intact, but there is some visible damage. Fiber ends are sticking out and there are some losses. The fabric is lightly faded. The filling and webbing are intact.

- The covering is not intact. Drastic damages are visible. Fiber ends are sticking out. Large parts are missing. The fabric is faded. The filling and webbing are intact.

- The covering is a bad replica of the original.

- There is no covering. The filling and webbing are intact.

Possible conservation treatments:

- None

- Covering the whole with dyed nylon net

- Missing portions are secured by means of stitching onto a support-fabric that matches it in terms of colour and material. The original seams may need to be opened in order to carry out this treatment

- A new cover made from reproduction fabric is manufactured to follow the original. The reproduction may be separated from the original by a smooth silk fabric in order to avoid friction

- A bad reconstruction is removed and replaced with a new reconstruction

- The original covering is removed and replaced with reconstruction

Approaches for conserving the textile coverings – three cases

On four ensembles the original textile coverings are preserved in situ. On two ensembles, some original coverings are still on the original frames, while others have been moved to other frames. Some changes were carried out on one ensemble, but the 18th century fabric is still mounted. In three rooms the art historians believe that the settings are unclear and furnishings from other castles or eras will be integrated. We can look at each ensemble and depending on the condition a conservation treatment plan will be devised. In the following tables, three ensembles with different situations are presented as cases studies.

Table 1: case no. 1 - room no. 104 ensemble “Sitting Chinese”

<table>
<thead>
<tr>
<th>Setting</th>
<th>condition</th>
<th>conservation concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>the original 18th century coverings of the whole ensemble have survived in situ</td>
<td>the covering is mainly intact but shows some visible damages, fiber ends sticking out, some losses, lightly faded, filling and webbing are intact</td>
<td>missing parts may be mounted and secured by means of stitching onto a support fabric that matches in terms of colour and material – original seams may have to be opened in order to carry out this treatment</td>
</tr>
</tbody>
</table>
Table 2: case no. 2 – room no. 4 ensemble „green Hercules Silk“

<table>
<thead>
<tr>
<th>Setting</th>
<th>condition</th>
<th>conservation concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>• composition of the ensemble varies. Some 18\textsuperscript{th} century coverings have survived in situ, while other coverings were replaced with newer ones and some chairs were originally parts of another ensemble</td>
<td>condition varies:</td>
<td>• covering the whole with dyed nylon net</td>
</tr>
<tr>
<td></td>
<td>• covering fabric is still intact. Some fibers are sticking out, but there are no losses. The fabric is lightly faded</td>
<td>• missing portions are secured by means of stitching onto a support-fabric that matches it in terms of colour and material. The original seams may need to be opened in order to carry out this treatment</td>
</tr>
<tr>
<td></td>
<td>• covering is mainly intact, but there is some visible damage. Fiber ends are sticking out and there are some losses. The fabric is lightly faded</td>
<td>• a new cover made from reproduction fabric is manufactured to follow the original. The reproduction may be separated from the original</td>
</tr>
<tr>
<td></td>
<td>• covering is not intact. Drastic damages are visible. Fiber ends are sticking out. Large parts are missing. The fabric is faded</td>
<td>• there is no covering</td>
</tr>
</tbody>
</table>

Table 3: case no. 3 – room no. 105 ensemble “Ruin Arches”

<table>
<thead>
<tr>
<th>Setting</th>
<th>condition</th>
<th>conservation concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>• the original 18\textsuperscript{th} century coverings were removed, cut down to fit another way, and mounted again</td>
<td>the covering fabric is still intact with some fiber ends sticking out, no losses, lightly faded in colour, filling and webbing are intact</td>
<td>cover entire piece with dyed nylon tull</td>
</tr>
</tbody>
</table>

Conclusion and perspective

It is possible for many specialists to work together if they can find a way to communicate how they work as one goal can be reached in many different ways. The goal of a presenting one harmonious whole can be reached in the project “Reconstruction of the Weissenstein”. The removal of original textile coverings and the mounting of reproductions has drastic consequences for the wooden frames, the polychromy and gilding and studs. The textile conservators of the Museumslandschaft Hessen Kassel established a conservation plan that was satisfying and practical. This system forms the basis of communication between the textile conservators and the conservators of the other materials and other specialists involved in the project. The next step will be the carrying out of sample treatments to give a clear picture of
methods and effects. Conservators of other materials will also prepare such samples. These samples can be used as a foundation for developing a conservation plan and realizing it in the future.

**Endnotes:**


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